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<u>Amendments to the Claims:</u>

The Claim Listing below will replace all prior versions of the claims in the application.

Amend the claim by cancelling Claim 87 as follows:

<u>Claim Listing:</u>
1-82.   (canceled).

83.   (Prevously presently) A system of associated components for preparing a set of oligonucleotides that modulates expression of a selected nucleic acid comprising:
a computer system that

        i) generates a list of oligonucleotide sequences according to a desired oligonucleotide length, thereby generating a series of oligonucleotide sequences;

        ii) applies a virtual oligonucleotide chemistry to the oligonucleotide sequences generated in step i) to yield a set of virtual oligonucleotides;

        iii) generates a subset of said set of virtual oligonucleotides, said subset being the result of a decision to target a functional region of said selected nucleic acid; and

        iv) generates synthesis instructions in computer manipulable form for said oligonucleotide sequences in said subset of said set of virtual oligonucleotides;
an automated synthesizer that receives said synthesis instructions from said computer system and synthesizes only said oligonucleotide sequences in said subset of said set of virtual oligonucleotides, wherein the product of said synthesis is a set of synthesized oligonucleotides; and
an apparatus that accepts said set of synthesized oligonucleotides and performs at least one procedure for each of said synthesized oligonucleotides wherein said procedure identifies particular members of said set that modulate expression of said selected nucleic acid.

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84.   (Previously presented) The system of claim 83 wherein said functional region is the transcription start site, 5' cap, start codon, 5' untranslated region, 3' untranslated region, stop codon, 5' splice site or polyadenylation site.

85.   (Previously presented) A system of associated components for preparing a set of oligonucleotides that modulates expression of a selected nucleic acid comprising:
a computer system that

        i) generates a list of oligonucleotide sequences according to a desired oligonucleotide length, thereby generating a series of oligonucleotide sequences;

        ii) applies a virtual oligonucleotide chemistry to the oligonucleotide sequences generated in step i) to yield a set of virtual oligonucleotides;

        iii) generates a subset of said set of virtual oligonucleotides, said subset being the result of a decision to: a) target a functional region of said selected nucleic acid, b) target an accessible site on said selected nucleic acid, and/or c) uniformly distribute oligonucleotide compounds across said selected nucleic acid; and

        iv) generates synthesis instructions in computer manipulable form for said oligonucleotide sequences in said subset of said set of virtual oligonucleotides;
an automated synthesizer that receives said synthesis instructions from said computer system and synthesizes only said oligonucleotide sequences in said subset of said set of virtual oligonucleotides, wherein the product of said synthesis is a set of synthesized oligonucleotides;
a first apparatus that accepts said set of synthesized oligonucleotides and performs at least one procedure for each of said synthesized oligonucleotides wherein said procedure identifies particular members of said set that modulate expression of said selected nucleic acid; and
a second apparatus for analyzing said set of synthesized oligonucleotides by a method or technique, selected from the group consisting of liquid chromatography, optical densiometry, mass spectroscopy, gel fluorescence and scintillation imaging, and capillary gel electrophoresis.

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86. (Previously presented) A system of associated components for preparing a set of oligonucleotides that modulates expression of a selected nucleic acid comprising:

a computer system that

i) generates a list of oligonucleotide sequences according to a desired oligonucleotide length, thereby generating a series of oligonucleotide sequences;

ii) applies a virtual oligonucleotide chemistry to the oligonucleotide sequences generated in step i) to yield a set of virtual oligonucleotides;

iii) generates a subset of said set of virtual oligonucleotides, said subset being the result of a decision to: a) target a functional region of said selected nucleic acid, b) target an accessible site on said selected nucleic acid, and/or c) uniformly distribute oligonucleotide compounds across said selected nucleic acid; and

iv) generates synthesis instructions in computer manipulable form for said oligonucleotide sequences in said subset of said set of virtual oligonucleotides;

an automated synthesizer that receives said synthesis instructions from said computer system and synthesizes only said oligonucleotide sequences in said subset of said set of virtual oligonucleotides, wherein the product of said synthesis is a set of synthesized oligonucleotides; and

an apparatus that accepts said set of synthesized oligonucleotides and performs at least one procedure for each of said synthesized oligonucleotides wherein said procedure identifies particular members of said set that modulate expression of said selected nucleic acid.

87. (Canceled)